

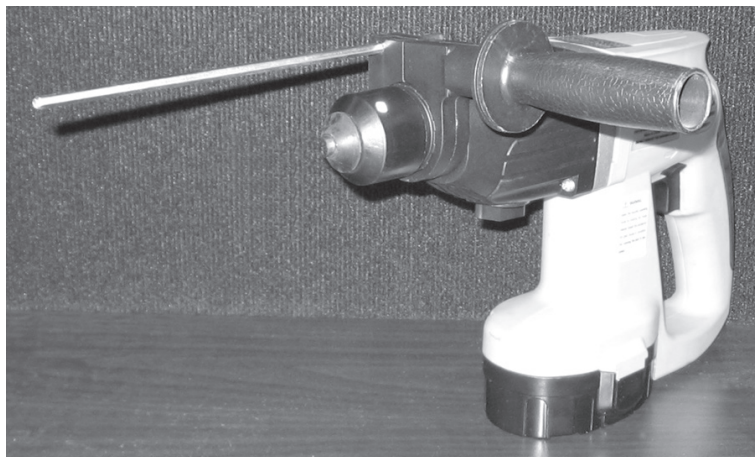
# CHICAGO

## Electric Power Tools

### *18V Cordless SDS Rotary Hammer*

**Model 93722**

#### ASSEMBLY AND OPERATING INSTRUCTIONS



Due to continuing improvements, actual product may differ slightly from the product described herein.



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**For technical questions and replacement parts, please call 1-800-444-3353**

## Specifications

Functions:	Cordless Hammer Drill, Drill only or Hammer only	Construction:	Plastic Housing with steel components
Power Supply:	Rechargeable 18VDC NiCd Battery Pack 1.7 aH	Charging Unit:	120VAC 1 hour Fast Charger
Trigger Switch:	Locking Forward / Reverse	Variable Speed:	Drill: 0 - 1040 rpm Hammer: 0 - 3100 bpm
Chuck Type:	SDS-Plus (Special Drive System)	Net Weight:	7.75 Lbs.

## Save This Manual

You will need the manual for the safety warnings and precautions, assembly instructions, operating and maintenance procedures, parts list and diagram. Keep your invoice with this manual. Write the invoice number on the inside of the front cover. Keep the manual and invoice in a safe and dry place for future reference.

## Safety Warnings and Precautions

**WARNING: When using tool, basic safety precautions should always be followed to reduce the risk of personal injury and damage to equipment.**

**Read all instructions before using this tool!**

1. **Keep work area clean.** Cluttered areas invite injuries.
2. **Observe work area conditions.** Do not use machines or power tools in damp or wet locations. Don't expose to rain. Keep work area well lit. Do not use electrically powered tools in the presence of flammable gases or liquids.
3. **Keep children away.** Children must never be allowed in the work area. Do not let them handle machines, tools, or extension cords.
4. **Store idle equipment.** When not in use, tools must be stored in a dry location to inhibit rust. Always lock up tools and keep out of reach of children.
5. **Use the right tool for the job.** Do not attempt to force a small tool or attachment to do the work of a larger industrial tool. There are certain applications for which this tool was designed. It will do the job better and more safely at the rate for which it was intended. Do not modify this tool and do not use this tool for a purpose for which it was not intended.

6. **Dress properly.** Do not wear loose clothing or jewelry as they can be caught in moving parts. Protective, electrically nonconductive clothes and nonskid footwear are recommended when working. Wear restrictive hair covering to contain long hair.
7. **Use eye and ear protection.** Always wear ANSI approved impact safety goggles and full face shield. Wear an ANSI approved dust mask or respirator when working around metal, wood, and chemical dusts and mists.
8. **Do not overreach.** Keep proper footing and balance at all times. Do not reach over or across running machines.
9. **Maintain tools with care.** Keep tools maintained and clean for better and safer performance. Follow instructions for lubricating and changing accessories. Inspect tool cords periodically and, if damaged, have them repaired by an authorized technician. The handles must be kept clean, dry, and free from oil and grease at all times.
10. **Disconnect power.** Unplug Battery Charger when not in use.
11. **Remove adjusting keys and wrenches.** Check that keys and adjusting wrenches are removed from the tool or machine work surface before plugging it in.
12. **Avoid unintentional starting.** Be sure the switch is in the Off position when not in use and before plugging in. Do not carry any tool with your finger on the trigger, whether it is plugged in or not.
13. **Stay alert.** Watch what you are doing, use common sense. Do not operate any tool when you are tired.
14. **Check for damaged parts.** Before using any tool, any part that appears damaged should be carefully checked to determine that it will operate properly and perform its intended function. Check for alignment and binding of moving parts; any broken parts or mounting fixtures; and any other condition that may affect proper operation. Any part that is damaged should be properly repaired or replaced by a qualified technician.
15. Always use 2 hands when using this tool.
16. **WARNING:** Some dust created by power sanding, sawing, grinding, drilling, and other construction activities, contain chemicals known [to the State of California] to cause cancer, birth defects or other reproductive harm. Some examples of these chemicals are:

Lead from lead-based paints

Crystalline silica from bricks and cement or other masonry products

Arsenic and chromium from chemically treated lumber

(California Health & Safety Code § 25249.5, *et seq.* )

16. **Guard against electric shock.** Prevent body contact with grounded surfaces such as pipes, radiators, ranges, and refrigerator enclosures.
17. **Replacement parts and accessories.** When servicing, use only identical replacement parts. Use of any other parts will void the warranty. Only use accessories intended for use with this tool. Approved accessories are available from Harbor Freight Tools.
18. **Do not operate tool if under the influence of alcohol or drugs.** Read warning labels on prescriptions to determine if your judgment or reflexes are impaired while taking drugs. If there is any doubt, do not operate the tool.
19. **Maintenance.** For your safety, service and maintenance should be performed regularly by a qualified technician.
20. **Pacemaker safety warning.** People with pacemakers should consult with their physician(s) before using this product; operation of equipment in close proximity to a heart pacemaker could cause interference or failure of the pacemaker.
21. **Do not use any bits other than SDS-plus bits designed for hammer drilling.** Use of improper bits may cause bit to fly out or break unexpectedly possibly causing severe personal or property damage.
22. **If bit binds, stop the drill.** Never continue drilling if the bit binds, as you may lose control of the drill, break a bit, or break the drill itself, resulting in personal injury.

**Note:** Performance of the charger may vary depending on variations in local line voltage. Extension cord usage may also affect tool performance.

**Warning:** The warnings, cautions, and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

## Unpacking

When unpacking, check to make sure that the product is intact and undamaged, and all accessories listed below are included.

*SDS-plus Cordless Hammer Drill*  
*18V Rechargeable Battery*  
*Auxiliary Handle with Depth Gauge*  
*Quick Charge Battery Recharge Unit*

If any parts are missing or broken, please call Harbor Freight Tools at the number on the cover of this manual.

## Using the Battery Charger

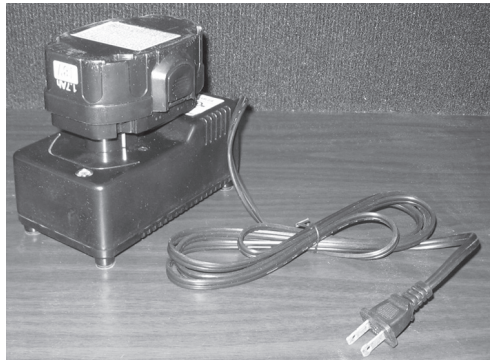
**NOTE:** Battery will not reach full charge the first time they are charged. Allow several cycles (operation followed by recharging) before the Battery will become fully charged.

### Battery Temperature Warning:

**WARNING:** Battery explosion may cause serious personal or property injury including death. Charge the Battery only within a 50° to 100° F. temperature range. Lower temperatures may inhibit charging. Higher temperatures increase chance of battery failure, including explosion.

### Battery Charger Safety:

1. Charge the Battery only with the included charger. Use of other chargers may cause battery failure including explosion.
2. Ensure that the Battery Charger is connected only to a 120 VAC, 60 Hz power supply that includes a circuit breaker.



*Using the Battery Charger*

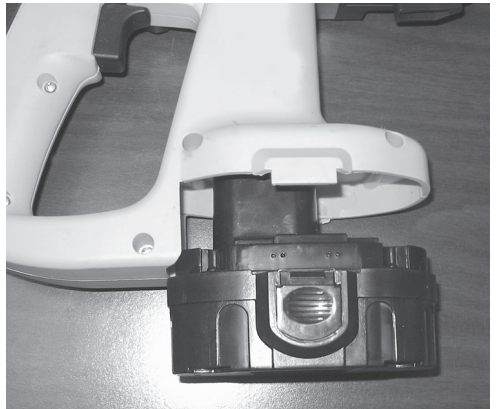
# Working with the Rechargeable Battery

## Charging the Battery:

1. Batteries are normally shipped with low or no charge to prevent potential problems during shipment. Before use, you must charge your new Battery. Initial charge time is approximately 1 hour. Subsequent recharge time is approximately 1 hour.
2. Plug the battery charger into a 120 VAC, 60 Hz power outlet.
3. Insert the Battery into the charger by aligning the rib on the Battery with the groove in the charger. Press the Battery into place. The Red LED will illuminate indicating that a Battery is charging.
4. **NOTE:** During recharging, the Battery will become slightly warm to the touch. This is normal and not a cause for concern. Do not keep the Battery or charger in an environment of extreme heat or cold. They will work best at room temperature.
5. The Red LED will remain on for approximately 1 hour while the Battery charges. When the Battery is fully charged the charger will stop charging, the Red LED will go out, and the Green LED will illuminate indicating that the Battery is fully charged.
6. When the Battery is fully charged, remove the charged battery from the charger, and unplug the charger from its power source. Put the charger away for safekeeping. Do not leave the Battery in the charger indefinitely.

## Installing the Battery

1. Slide the Battery into the base of the handle. **CAUTION:** Do not press the battery into the handle if it is not properly aligned, as this may damage the body of the tool, and will not secure the battery.
2. Be sure the Battery is properly installed before using the tool.



*Installing the Battery Pack*

## Using the battery locks and Removing the Battery

1. After placing the Battery in the tool, battery locks on the side of the Battery engage to prevent the battery from coming out accidentally.
2. To remove the Battery, depress the battery locks and remove the Battery by pulling straight out.

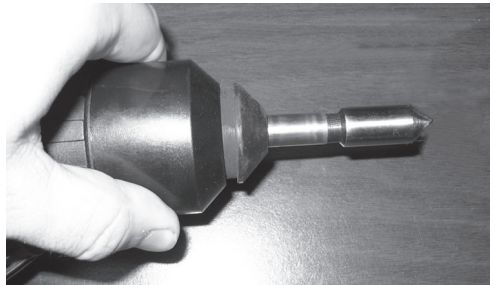
## Special Drive System (SDS)

SDS bits use a cylindrical shank, with indents held by the chuck. To install a bit, pull the Chuck back, insert the bit, then press the chuck forward to lock the bit in place. To remove the bit, pull the Chuck back, pull the bit straight out, and release the Chuck.

The SDS system has the advantage of a spring-loaded chuck, so that bits can be chucked with a simple and quick hand action. Further, the bit and chuck are uniquely suited to hammer drilling in stone and concrete. While the drill bit is held solidly in the chuck, it can slide forward and back like a piston. The hammer of the drill acts to accelerate only the drill bit itself, and not the large mass of the chuck. That makes hammer drilling with an SDS-plus drill bit much more productive than with other types of bits. SDS bits are most often used for masonry drilling, for which hammer drilling action is most helpful.

SDS bits use sliding keyways that open to the end of the bit, which mate with keys in the chuck. There are additional indents on the bit that are grasped by the chuck to prevent the drill bit falling out. The hammer of the drill hits the flat end of the bit. **NOTE:** To allow the bit to freely slide in the chuck, the shank of the bit must be lubricated with grease.

SDS is available in three sizes, SDS, SDS-plus, and SDS-max. SDS-plus is the most common type, with masonry drills from 5 mm diameter to 30 mm diameter ordinarily available. The shortest SDS-plus masonry drill bits are about 110 mm overall length, and the longest 1000 mm. If extra long bits are used, a shorter bit must be used first to start the hole.



*SDS-plus chuck operation*

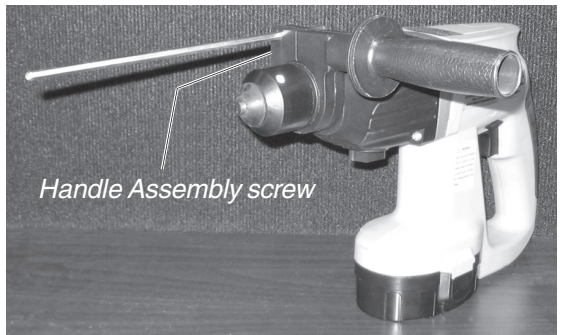
**CAUTION: Use only SDS-Plus bits with this tool.**

## Operation

### ***For use as a Hammer Drill:***

**CAUTION:** Use only impact grade SDS-Plus bits, designed for SDS-Plus hammer drills. Standard bits will not be properly held by this Chuck, and may break under the force created by this tool. SDS-Plus impact grade bits are available from Harbor Freight Tools.

1. The Auxiliary Handle must be installed for additional stability when Hammer Drilling. Always use both hands to hold this tool during hammer drill operation. To install Auxiliary Handle, slide the Auxiliary Handle Assembly (32) over the Front Housing (24). Tighten the screw in the Handle Assemble to lock in place. Adjust the length of the Depth Gauge Rod to stop the drilling process when the correct hole depth is reached. Tighten the Depth Gauge Rod in place by tightening the screw in the Auxiliary Handle Assembly.
2. This tool has three settings, Drill Only, Hammer Only and Hammer Drill. Select the proper setting for the work you will do. Be sure the tool has come to a complete stop before moving the selector to another setting. Move the Function Selector to the Hammer Drill setting. Please see picture on page 9 for reference. This setting will allow the drill to hammer as well as turn.
3. Press the Forward-Reverse Switch (61) to the right for forward drilling, press it to the left for reverse drilling.
4. The speed of the tool is controlled by squeezing the Trigger (60). Progressively increase or decrease pressure on the Trigger to make the tool operate faster or slower.
5. The Hammer Drill is best suited for drilling into hard materials such as concrete or masonry. Select an appropriate size and type SDS-Plus hammer drill bit (not included). Insert it onto the Chuck and tighten securely. See instructions on page 7 for inserting SDS-Plus drill bits.



*The Hammer Drill with  
Auxiliary Handle Assembly*

**Warning:** Always wear ANSI approved safety glasses and full face shield when hammer drilling. **Caution:** Always check around and behind the area being drilled to prevent drilling into wires, pipes or causing other unintentional property damage. **Always use 2 hands when using this tool.**

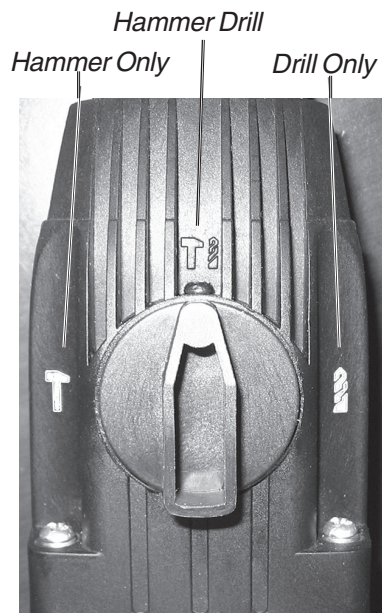


6. Position the drill bit at the place to be drilled and squeeze the Trigger. The tool is variable speed, and will rotate and hammer faster as the Trigger is progressively squeezed.
7. When the forward end of the Depth Gauge Rod contacts the work surface, you know the hole is the desired depth. Release the Trigger to stop the operation of the tool, and withdraw the bit from the hole.

***For Use as a Drill:***

1. Move the Selector Switch to the Drill setting. Please see picture below for reference. This setting will allow the drill to turn but not hammer.
2. Select and install an appropriate drill bit. Follow the instructions on page 7 for installing an SDS-plus drill bit.
3. Start the drill by squeezing the trigger to be sure that the drill bit is properly centered in the Chuck. **Always use 2 hands when using this tool.**
4. Position the drill bit at the appropriate point on the workpiece and squeeze the trigger to start the drill operating. The tool is variable speed, and will rotate faster as the Trigger is progressively squeezed.
5. When the desired depth has been reached, release the Trigger to stop the operation of the tool, and withdraw the bit from the hole.

**NOTE:** This tool is reversible. If the drill bit does not withdraw easily from the hole, you may reverse the rotation to help it come out. With the tool stopped, move the Forward-Reverse Switch from right to left. Then squeeze the trigger, the drill will operate in reverse. As needed, stop the operation of the tool, and press the Forward-Reverse Switch from left to right to reset the drill in forward rotation position. **CAUTION:** Do not press the Forward-Reverse Switch while the tool is operating. This might damage the tool.



*The Hammer Drill Selector Switch*

### ***For Use as a Hammer:***

1. Move the Selector Switch to the Hammer setting. Position the bit on the work material where desired. Squeeze the Trigger to make the tool operate. When finished, release the Trigger to stop the tool.

**NOTE:** Always wear ANSI approved glasses and full face shield when hammering. Keep hands and fingers away from the tool bit area to prevent injury.

## **Troubleshooting**

### ***Tool will not operate or operates slowly:***

1. Battery Pack may be discharged. Replace Battery Pack with a fresh one, or recharge the Battery Pack.
2. Too great a load is being placed on the tool. Lighten pressure on workpiece.

### ***Battery Pack loses charge quickly:***

1. New Battery Pack will not hold a charge as long as older ones. Completely deplete and recharge Battery Pack several times to extend its charge life.

### ***Drill operates as expected, but hole is not drilled effectively:***

1. Sharpen or replace the drill bit. Or select a drill bit more appropriate to the job.

## **Maintenance**

1. Keep your tool clean and dry. Wipe dirt and grease from it if it becomes dirty.
2. Do not allow your tool, Battery Packs or Charger to become wet.
3. Do not leave Battery Pack in Charger unattended for long periods of time.
4. When not in use, remove the Battery Pack and store both tool and Battery Packs in its case in a dry, secure location.
5. Always dispose of used batteries properly. Contact your local hazardous waste authority for proper disposal guidelines.

## Parts List

Part	Description	QTY.
1	Spring Brush	1
2	Resistant Spring	1
3	Collet	1
4	Spring	1
5	Bearing 6904Z	1
6	Resistant Ring	1
7	Resistant Ring	1
8	Spring	1
9	Gear	1
10	Steel Ball	1
11	Pump Bushing	1
12	Washer, Rubber	1
13	Restriction Block	1
14	Ring, Rubber	1
15	Impact Pole	1
16	Ring, Rubber	2
17	Resistant Ring	1
18	Washer	2
19	Pump Pin	1
20	Pump	1
21	Piston	1
22	Ring, Rubber	1
23	Bushing	1
24	Front Housing	1

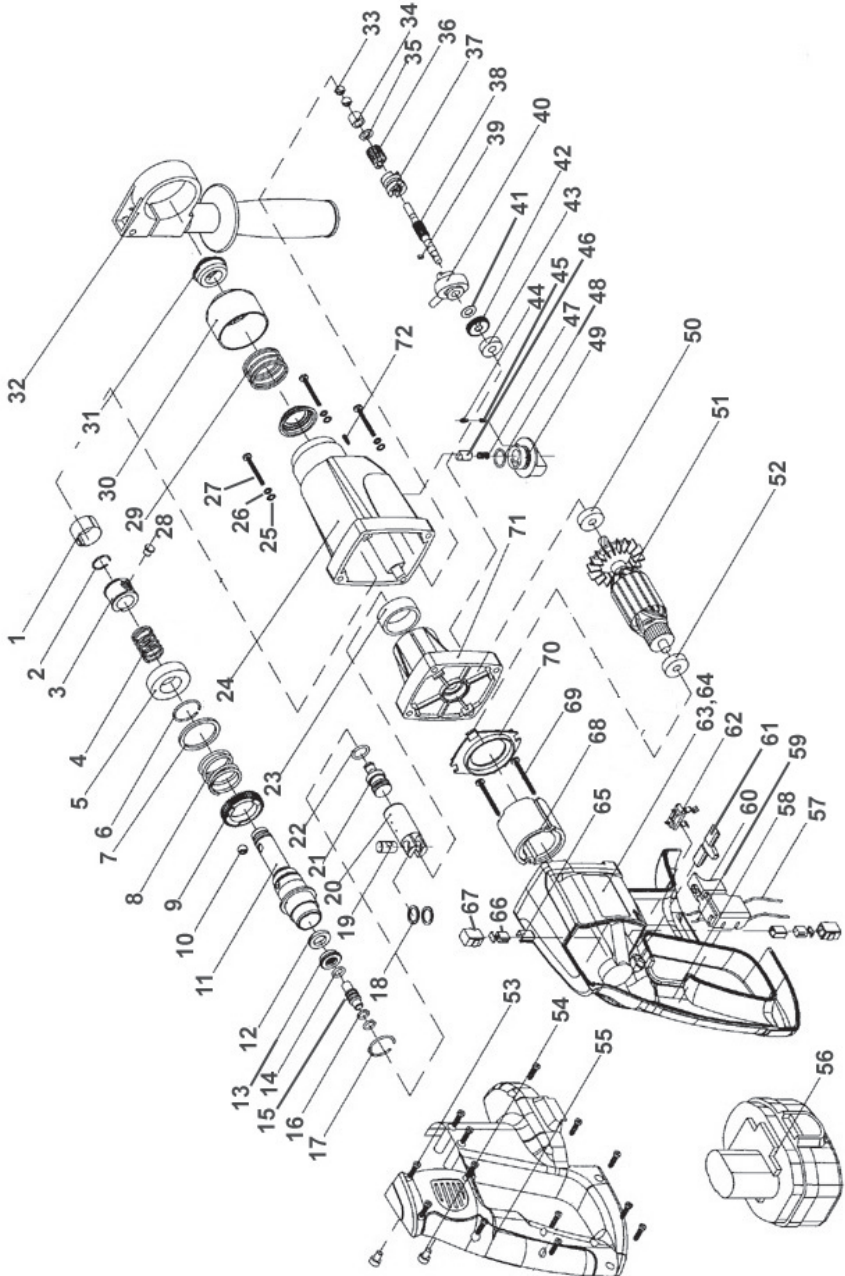
Part	Description	QTY.
25	Washer, Plate	4
26	Washer, Spring	4
27	Screw, m4x38	4
28	Pin	1
29	Spring	1
30	Clamp Bushing	1
31	Rubber Head	1
32	Auxilliary Handle Ass'y	1
33	Steel Ball	2
34	Bearing, HK071109	1
35	Washer	1
36	Gear	1
37	Clutch	1
38	Axis	1
39	Pin	1
40	Bearing, Wave	1
41	Washer	1
42	Gear	1
43	Bearing, 607-Z	1
44	Pole	1
45	Spring	1
46	Pole	1
47	Spring	1
48	Ring, Rubber	1

Part	Description	QTY.
49	Function Selector	1
50	Bearing, 608-Z	1
51	Rotator	1
52	Bearing, 608-Z	1
53	Screw, ST 4x20	13
54	Rubber Presser	2
55	Handle	1
56	Battery	2
57	Wire	2
58	Back Housing	1
59	Wire	1
60	Trigger	2
61	Forward-Reverse Switch	1
62	Clamp	1
63	Left Name Plate	1
64	Right Name Plate	1
65	Brush	2
66	Brush Housing	2
67	Brush Holder	2
68	Stator	1
69	Screw, ST 35x50	2
70	Weather Strip, Circle	1
71	Middle Housing	1
72	Screw	1

**PLEASE READ THE FOLLOWING CAREFULLY**

THE MANUFACTURER AND/OR DISTRIBUTOR HAS PROVIDED THE PARTS DIAGRAM IN THIS MANUAL AS A REFERENCE TOOL ONLY. NEITHER THE MANUFACTURER NOR DISTRIBUTOR MAKES ANY REPRESENTATION OR WARRANTY OF ANY KIND TO THE BUYER THAT HE OR SHE IS QUALIFIED TO MAKE ANY REPAIRS TO THE PRODUCT OR THAT HE OR SHE IS QUALIFIED TO REPLACE ANY PARTS OF THE PRODUCT. IN FACT, THE MANUFACTURER AND/OR DISTRIBUTOR EXPRESSLY STATES THAT ALL REPAIRS AND PARTS REPLACEMENTS SHOULD BE UNDERTAKEN BY CERTIFIED AND LICENSED TECHNICIANS AND NOT BY THE BUYER. THE BUYER ASSUMES ALL RISK AND LIABILITY ARISING OUT OF HIS OR HER REPAIRS TO THE ORIGINAL PRODUCT OR REPLACEMENT PARTS THERETO, OR ARISING OUT OF HIS OR HER INSTALLATION OF REPLACEMENT PARTS THERETO.

# Assembly Drawing



**NOTE:** Some parts are listed and shown for illustration purposes only and are not available individually as replacement parts.